WO 2005/033280

IAP5 Rec'd PCT/PTO 2 7 MAR 2004

CAGTTGAACCAGAGCAAGTAGAAGAGGCCAAATAAGGAGAGAAGAACAGCTTGTTACACCCTATGAGCCAGCATG ${\tt GGAGGTGTGGCCTGGGCGGACTGGGGAGTGCCGAGCCCTCAGATGCTACATATAAGCAGCTGCTTTTTGCCTGT}$ ${\tt ACTGGGTCTCTGGTTAGACCAGATCTGAGCCTGGGAGCTCTCTGGCTAACTAGGGAACCCACTGCTTAAGCCT}$ CAATAAAGCTTGCCTTGAGTGCTCAAAGTAGTGTGTGCCCGTCTGTTGTGTGACTCTGGTAACTAGAGATCCCTC AGACCCTTTTAGTCAGTGTGGAAAATCTCTAGCAGTGGCGCCCCGAACAGGGACTTGAAAGCGAAAGTAAAGCCAG AGGAGATCTCTCGACGCAGGACTCGGCTTGCTGAAGCGCGCACGGCAAGAGGCGAGGGGGGGCGACTGGTGAGTA CAAGCAGGGAGCTAGAACGATTCGCAGTTAATCCTGGCCTGTTAGAAACATCAGAAGGCTGTAGACAAATACTGG GACAGCTACAACCATCCCTTCAGACAGGATCAGAAGAACTTAGATCATTATATAATACAGTAGCAACCCTCTATT GTGTGCATCAAAGGATAGAGATAAAAGACACCAAGGAAGCTTTAGACAAGATAGAGGAAGAGAGAAAAAAAGTA AGACCACCGCACAGCAAGCGGCCGCTCTAGCCCGGGCGGATCCGAATTCGCATGCGTCGACTCGAGGACTACAAG GATGACGATGACAAGGATTACAAAGACGACGATGATAAGGACTATAAGGATGATGACGACAAATAATAGCAATTC GGCCGGTGTGCGTTTGTCTATATGTTATTTTCCACCATATTGCCGTCTTTTGGCAATGTGAGGGCCCGGAAACCT GGCCCTGTCTTCTTGACGAGCATTCCTAGGGGTCTTTCCCCTCTCGCCAAAGGAATGCAAGGTCTGTTGAATGTC CAGTGCCACGTTGTGAGTTGGATAGTTGTGGAAAGAGTCAAATGGCTCTCCTCAAGCGTATTCAACAAGGGGCTG TCGAGGTTAAAAAACGTCTAGGCCCCCCGAACCACGGGGACGTGGTTTTCCTTTGAAAAACACGATGATAATGGC ${\tt CACAACCATGGTGAGCAGGCAGGATCCTGAAGAACACCGGCCTGCAGGAGATCATGAGCTTCAAGGTGAACCTGGA}$ ${\tt GGGCGTGGTGAACAACCACGTGTTCACCATGGAGGGCTGCGGCAAGGGCAACATCCTGTTCGGCAACCAGCTGGT}$ GCAGATCCGCGTGACCAAGGGCGCCCCCTGCCCTTCGCCTTCGACATCCTGAGCCCCGCCTTCCAGTACGGCAA GCGCACCCTGCGCTACGAGGACGCCGGCCTGGTGGAGATCCGCAGCGACATCAACCTGATCGAGGAGATGTTCGT GTACCGCGTGGAGTACAAGGGCCGCAACTTCCCCAACGACGGCCCGTGATGAAGAAGACCATCACCGGCCTGCA GCCCAGCTTCGAGGTGTTACATGAACGACGGCGTGCTGGTGGGCCAGGTGATCCTGGTGTACCGCCTGAACAG CGGCAAGTTCTACAGCTGCCACATGCGCACCCTGATGAAGAGCAAGGGCGTGGTGAAGGACTTCCCCGAGTACCA ${\tt CCAGCTGACCAGCCTGGGCAGCCTGGGCAGCCTGCACGAGTGGGTAATAGGGTACCAGGTAAGTGTACCCC}$ AATTCGGCCGCTGATCTTCAGACCTGGAGGAGGAGATATGAGGGGACAATTGGAGAAGTGAATTATAAATATAA AGTGGGAATAGGAGCTTTGTTCCTTGGGTTCTTGGGAGCAGCAGGAAGCACTATGGGCGCAGCGTCAATGACGCT GACGGTACAGGCCAGACAATTATTGTCTGGTATAGTGCAGCAGCAGAACAATTTGCTGAGGGGCTATTGAGGCGCA ACAGCATCTGTTGCAACTCACAGTCTGGGGCATCAAGCAGCTCCAGGCAAGAATCCTGGCTGTGGAAAGATACCT AAAGGATCAACAGCTCCTGGGGATTTGGGGTTGCTCTGGAAAACTCATTTGCACCACTGCTGTGCCTTGGAATGC TTACACAAGCTTAATACACTCCTTAATTGAAGAATCGCAAAACCAGCAAGAAAAGAATGAACAAGAATTATTGGA ATTAGATAAATGGGCAAGTTTGTGGAATTGGTTTAACATAACAAATTGGCTGTGGTATATAAAATTATTCATAAT GATAGTAGGAGGCTTGGTAGGTTTAAGAATAGTTTTTGCTGTACTTTCTATAGTGAATAGAGTTAGGCAGGGATA TTCACCATTATCGTTTCAGACCCACCTCCCAACCCCGAGGGGACCCGACGGCCCGAAGGAATAGAAGAAGAAGG TGGAGAGAGAGACAGACAGATCCATTCGATTAGTGAACGGATCTCGACGGTATCGTATGGGGGATTGGTGGCGA CGACTCCTGGAGCCCGTCAGTATCGGCGGAATTCCAGCTGAGCCAGCAGCAGATGGGGTGGGAGCAGTATCTCGA GACCTAGAAAAACATGGAGCAATCACAAGTAGCAATACAGCAGCTAACAATGCTGCTTGTGCCTGGCTAGAAGCA CAAGAGGAGGAGGAGGTGGGTTTTCCAGTCACCCTCAGGTACCTTTAAGACCAATGACTTACAAGGCAGCTGTA GATCTTAGCCACTTTTTAAAAGAAAAGGGGGGACTGGAAGGGCTAATTCACTCCCAAAGAAGACAAGATATCCTT GATCTGTGGATCTACCACACACACGGCTACTTCCCTGATTGGCAGAACTACACACCAGGGCCAGGGGTCAGATAT GACAGCCGCCTAGCATTCATCACGTGGCCCGAGAGCTGCATCCGGAGTACTTCAAGAACTGCTGACATCGAGCT TGCTACAAGGGACTTTCCGCTGGGGACTTTCCAGGGAGGCGTGGCCTGGGCGGGACTGGGGAGTGGCGAGCCCTC AGATGCTGCATATAAGCAGCTGCTTTTTGCCTGTACTGGGTCTCTCTGGTTAGACCAGATCTGAGCCTGGGAGCT $\tt CTCTGGCTAACTAGGGAACCCACTGCTTAAGCCTCAATAAAGCTTGCCTTGAGTGCTTCAAGTAGTGTGTCCCG$ TCTGTTGTGTGACTCTGGTAACTAGAGATCCCTCAGACCCTTTTAGTCAGTGTGGAAAATCTCTAGCA

Fig. 1

WO 2005/033280 PCT/US2004/031967

TGGÄÄÜGG@TAMINTEGTUCCAAAMAAGACAAGAGATCCTTGATCTGTGGATCTACCACACACAAGGCTACTTCCCTGAT TGGCAGAACTACACACCAGGGCCAGGGATCAGATATCCACTGACCTTTGGATGGTGCTTCAAGTTAGTACCAGTTGAACC ${f AGAGCAAGTAGAAGAGGCCAAATAAGGAGAAGAACAGCTTGTTACACCCTATGAGCCAGCATGGGATGGAGGACCCGG}$ AGGGAGAAGTATTAGTGTGGAAGTTTGACAGCCTCCTAGCATTTCGTCACATGGCCCGAGAGCTGCATCCGGAGTACTAC AAAGACTGCTGACATCGAGCTTTCTACAAGGGACTTTCCGCTGGGGACTTTCCAGGGAGGTGTGGCCTGGGCGGGACTGG GGAGTGGCGAGCCCTCAGATGCTACATATAAGCAGCTGCTTTTTGCCTGTACTGGGTCTCTCTGGTTAGACCAGATCTGA GCCTGGGAGCTCTCTGGCTAACTAGGGAACCCACTGCTTAAGCCTCAATAAAGCTTGCCTTGAGTGCTCAAAGTAGTGTG TGCCCGTCTGTTGTGTGACTCTGGTAACTAGAGATCCCTCAGACCCTTTTAGTCAGTGTGGAAAATCTCTAGCAGTGGCG CCCGAACAGGGACTTGAAAGCGAAAGTAAAGCCAGAGGAGATCTCTCGACGCAGGACTCGGCTTGCTGAAGCGCGCACGG ${\tt ATTAAAACATATAGTATGGGCAAGCAGGAGCTAGAACGATTCGCAGTTAATCCTGGCCTGTTAGAAACATCAGAAGGCT}$ GTAGACAAATACTGGGACAGCTACAACCATCCCTTCAGACAGGATCAGAAGAACTTAGATCATTATAATACAGTAGCA ACCCTCTATTGTGTGCATCAAAGGATAGAGATAAAAGACACCAAGGAAGCTTTAGACAAGATAGAGGAAGAGACAAAACAA AAGTAAGACCACCGCACAGCAAGCGGCCGCATCTCCTATGGCAGGAAGAAGCGGAGACAGCGAAGAGCTCATCAGAA TAGTAGTAGCACCCGGGCGGATCCGAATTCGCATGCGTCGACTCGAGGACTACAAGGATGACGATGACAAGGATTACAAA GACGACGATGATAAGGACTATAAGGATGATGACGACAAATAATAGCAATTCCTCGACGACTGCATAGGGTTACCCCCCTC ${\tt TCCCTCCCCCCCCTAACGTTACTGGCCGAAGCCGCTTGGAATAAGGCCGGTGTGCGTTTGTCTATATGTTATTTTCCA}$ GTCTGTAGCGACCCTTTGCAGGCAGCGGAACCCCCCACCTGGCGACAGGTGCCTCTGCGGCCAAAAGCCACGTGTATAAG ATACACCTGCAAAGGCGGCACAACCCCAGTGCCACGTTGTGAGTTGGATAGTTGTGGAAAGAGTCAAATGGCTCTCCTCA CTTTACATGTGTTTAGTCGAGGTTAAAAAACGTCTAGGCCCCCGAACCACGGGGACGTGGTTTTCCTTTGAAAAACACG ATGATAATGGCCACAACCATGGTGAGCAAGCAGATCCTGAAGAACACCGGCCTGCAGGAGATCATGAGCTTCAAGGTGAA CCTGGAGGGCGTGGTGAACAACCACGTGTTCACCATGGAGGGCTGCGGCAAGGGCCAACATCCTGTTCGGCAACCAGCTGG TGCAGATCCGCGTGACCAAGGGCGCCCCCTGCCCTTCGCCTTCGACATCCTGAGCCCCGCCTTCCAGTACGGCAACCGC ACCTTCACCAAGTACCCCGAGGACATCAGCGACTTCTTCATCCAGAGCTTCCCCGCCGGCTTCGTGTACGAGCGCACCCT GCGCTACGAGGACGGCGGCCTGGTGGAGATCCGCAGCGACATCAACCTGATCGAGGAGATGTTCGTGTACCGCGTGGAGT ACAAGGGCCGCAACTTCCCCAACGACGGCCCCGTGATGAAGAAGACCATCACCGGCCTGCAGCCCAGCTTCGAGGTGGTG TACATGAACGACGGCGTGCTGGGGCCAGGTGATCCTGGTGTACCGCCTGAACAGCGGCAAGTTCTACAGCTGCCACAT ${\tt AGAGAAGAGTGGTGCAGAGAAAAAAAAGAGCAGTGGGAATAGGAGCTTTGTTCCTTGGGTTCTTGGGAGCAGCAGGAAGC}$ ${\tt ACTATGGGCGCAGCGTCAATGACGCTGACGGTACAGGCCAGACAATTATTGTCTGGTATAGTGCAGCAGCAGAACAATTT}$ GCTGAGGGCTATTGAGGCGCAACAGCATCTGTTGCAACTCACAGTCTGGGGCATCAAGCAGCTCCAGGCAAGAATCCTGG $\tt CTGTGGAAAGATACCTAAAGGATCAACAGCTCCTGGGGATTTGGGGTTGCTCTGGAAAACTCATTTGCACCACTGCTGTG$ TAACAATTACACAAGCTTAATACACTCCTTAATTGAAGAATCGCAAAACCAGCAAGAAAAGAATGAACAAGAATTATTGG AATTAGATAAATGGGCAAGTTTGTGGAATTGGTTTAACATAACAAATTGGCTGTGGTATAAAAATTATTCATAATGATA ${\tt GTAGGAGGCTTGGTAGGTTTAAGAATAGTTTTTGCTGTACTTTCTATAGTGAATAGAGTTAGGCAGGGATATTCACCATT}$ GAGACAGATCCATTCGATTAGTGAACGGATCTCGACGGTATCGTATGGGGGATTGGTGGCGACGACTCCTGGAGCCCGTCA GTATCGGCGGAATTCCAGCTGAGCCAGCAGCAGATGGGGTGGGAGCAGTATCTCGAGACCTAGAAAAACATGGAGCAATC ${\tt ACAAGTAGCAATACAGCTAACAATGCTGCTTGTGCCTGGCTAGAAGCACAAGAGGGGGAAGAGGTGGGTTTTCCAGT}$ TGGCAGAACTACACCAGGGGCCAGGGGTCAGATATCCACTGACCTTTGGATGGTGCTACAAGCTAGTACCAGTTGAGCC AGATAAGGTAGAAGAGGCCAATAAAGGAGAGAACACCAGCTTGTTACACCCTGTGAGCCTGCATGGAATGGATGACCCTG ${\tt AGAGAGAAGTGTTAGAGTGGAGGTTTGACAGCCGCCTAGCATTTCATCACGTGGCCCGAGAGCTGCATCCGGAGTACTTCC}$ ${\tt AAGAACTGCTGACATCGAGCTTGCTACAAGGGACTTTCCGCTGGGGACTTTCCAGGGAGGCGTGGCCTGGGCGGGACTGG}$ TGCCCGTCTGTTGTGTGACTCTGGTAACTAGAGATCCCTCAGACCCTTTTAGTCAGTGTGGAAAATCTCTAGCA

Fig. 2

WO 2005/033280 PCT/US2004/031967

CTGATTGGCAGAACTACACACCAGGGCCAGGGATCAGATATCCACTGACCTTTGGATGGTGCTTCAAGTTAGTAC CAGTTGAACCAGAGCAAGTAGAAGAGGCCAAATAAGGAGAGAAGAACAGCTTGTTACACCCTATGAGCCAGCATG GGATGGAGGACCCGGAGGGAGAAGTATTAGTGTGGAAGTTTGACAGCCTCCTAGCATTTCGTCACATGGCCCGAG AGCTGCATCCGGAGTACTACAAAGACTGCTGACATCGAGCTTTCTACAAGGGACTTTCCGCTGGGGACTTTCCAG GGAGGTGTGGCCTGGGCGGACTGGGGAGTGCCGAGCCCTCAGATGCTACATATAAGCAGCTGCTTTTTTGCCTGT ACTGGGTCTCTCTGGTTAGACCAGATCTGAGCCTGGGAGCTCTCTGGCTAACTAGGGAACCCACTGCTTAAGCCT CAATAAAGCTTGCCTTGAGTGCTCAAAGTAGTGTGTGCCCGTCTGTTGTGTGACTCTGGTAACTAGAGATCCCTC AGACCCTTTTAGTCAGTGTGGAAAATCTCTAGCAGTGGCGCCCGAACAGGGACTTGAAAGCGAAAGTAAAGCCAG AGGAGATCTCTCGACGCAGGACTCGGCTTGCTGAAGCGCGCACGGCAAGAGGCGAGGGGGCGGCGACTGGTGAGTA CAAGCAGGGAGCTAGAACGATTCGCAGTTAATCCTGGCCTGTTAGAAACATCAGAAGGCTGTAGACAAATACTGG GACAGCTACAACCATCCCTTCAGACAGGATCAGAAGAACTTAGATCATTATATAATACAGTAGCAACCCTCTATT GTGTGCATCAAAGGATAGAGATAAAAGACACCAAGGAAGCTTTAGACAAGATAGAGGAAGAGACAAAACAAAAGTA AGACCACCGCACAGCAAGCGGCCGCATCTCCTATGGCAGGAAGAAGCGGAGAGACAGCGACGAAGAGCTCATCAGAA AGCATTAGTAGTAGCACCCGGGCGGATCCGCCGCCGCCATGAAAGTGTTCCGCAAATTCCGCAAAAAAGAAGAGGA AGGTAGAAGACCCCAAGGACTTTCCTTCAGAATTGCTAAGTTTTTTGAGTCCAAGCTTGGCACTGGCCGTCGTTT TACAACGTCGTGACTGGGAAAACCCTGGCGTTACCCAACTTAATCGCCTTGCAGCACATCCCCCTTTCGCCAGCT TCCCCTCAAACTGGCAGATGCACGGTTACGATGCGCCCATCTACACCAACGTAACCTATCCCATTACGGTCAATC $\tt CGCCGTTTGTTCCCACGGAGAATCCGACGGGTTGTTACTCGCTCACATTTAATGTTGATGAAAGCTGGCTACAGGGTTGTTACTCGCTCACATTTAATGTTGATGAAAGCTGGCTACAGGTTACTCGCTCACATTTAATGTTGATGAAAGCTGGCTACAGGTTGTTACTCGCTCACATTTAATGTTGATGAAAGCTGGCTACAGGTTGTTACTCGCTCACATTTAATGTTGATGAAAGCTGGCTACAGGTTACAGGTTGATGAAAGCTGGCTACAGGTTACAGAGAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGAGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGTTACAGGT$ AAGGCCAGACGCGAATTATTTTTGATGGCGTTAACTCGGCGTTTCATCTGTGGTGCAACGGGCGCTGGGTCGGTT ACGGCCAGGACAGTCGTTTGCCGTCTGAATTTGACCTGAGCGCATTTTTACGCGCCCGGAGAAAACCGCCTCGCGG TGATGGTGCTGCGTTGGAGTGACGGCAGTTATCTGGAAGATCAGGATATGTGGCGGATGAGCGGCATTTTCCGTG ACGTCTCGTTGCTGCATAAACCGACTACACAAATCAGCGATTTCCATGTTGCCACTCGCTTTAATGATGATTTCA GGCAGGGTGAAACGCAGGTCGCCAGCGGCACCGCGCCTTTCGGCGGTGAAATTATCGATGAGCGTGGTGATATG CCGATCGCGTCACACTACGTCTGAACGTCGAAAACCCGAAACTGTGGAGCGCCGAAATCCCGAATCTCTATCGTG CGGTGGTTGAACTGCACACCGCCGACGGCACGCTGATTGAAGCAGAAGCCTGCGATGTCGGTTTCCGCGAGGTGC GGATTGAAAATGGTCTGCTGCTGAACGGCAAGCCGTTGCTGATTCGAGGCGTTAACCGTCACGAGCATCATC CTCTGCATGGTCAGGTCATGGATGAGCAGACGATGGTGCAGGATATCCTGCTGATGAAGCAGAACAACTTTAACG $\tt CCGTGCGCTGTTCGCATTATCCGAACCATCCGCTGTGGTACACGCTGTGCGACCGCTACGGCCTGTATGTGGTGG$ ATGAAGCCAATATTGAAACCCACGGCATGGTGCCAATGAATCGTCTGACCGATGATCCGCGCTGGCTACCGGCGA TGAGCGAACGCGTAACGCGAATGGTGCAGCGCGATCGTAATCACCCGAGTGTGATCATCTGGTCGCTGGGGAATG ${\tt CCTTCCCGGCTGTGCCGAAATGGTCCATCAAAAAATGGCTTTCGCTACCTGGAGAGACGCGCCCGCTGATCCTTT}$ ${\tt GCGAATACGCCCACGCGATGGGTAACAGTCTTGGCGGTTTCGCTAAATACTGGCAGGCGTTTCGTCAGTATCCCCC}$ GCACGCCGCATCCAGCGCTGACGGAAGCAAAACACCAGCAGCAGTTTTTCCAGTTCCGTTTATCCGGGCAAACCA TCGAAGTGACCAGCGAATACCTGTTCCGTCATAGCGATAACGAGCTCCTGCACTGGATGGTGGCGCTGGATGGTA CCATCCCGCATCTGACCACCAGCGAAATGGATTTTTGCATCGAGCTGGGTAATAAGCGTTGGCAATTTAACCGCC AGTCAGGCTTTCTTTCACAGATGTGGATTGGCGATAAAAAACAACTGCTGACGCCGCTGCGCGATCAGTTCACCC GTGCACCGCTGGATAACGACATTGGCGTAAGTGAAGCGACCCGCATTGACCCCTAACGCCTGGGTCGAACGCTGGA AGGCGGCGGCCATTACCAGGCCGAAGCAGCGTTGTTGCAGTGCACGGCAGATACACTTGCTGATGCGGTGCTGA

Fig. 3A

WO 2005/033280 PCT/US2004/031967

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GCCAGCTGGCGCAGGTAGCAGAGCGGGTAAACTGGCTCGGATTAGGGCCGCAAGAAAACTATCCCGACCGCCTTA CTGCCGCCTGTTTTGACCGCTGGGATCTGCCATTGTCAGACATGTATACCCCGTACGTCTTCCCGAGCGAAAACG GTCTGCGCTGCGGGACGCGCAATTGAATTATGGCCCACACCAGTGGCGCGGCGACTTCCAGTTCAACATCAGCC GCTACAGTCAACAGCAACTGATGGAAACCAGCCATCGCCATCTGCTGCACGCGGAAGAAGGCACATGGCTGAATA TCGACGGTTTCCATATGGGGATTGGTGGCGACGACTCCTGGAGCCCGTCAGTATCGGCGGAATTCCAGCTGAGCG ${\tt CCGGTCGCTACCATTACCAGTTGGTCTGGTGTCAAAAATAATAATAACCGGGCAGGGTCGACTCGAGGACTACAA}$ GGATGACGATGACAAGGATTACAAAGACGACGATGATAAGGACTATAAGGATGATGACGACAAATAATAGCAATT AGGCCGGTGTGCGTTTGTCTATATGTTATTTTCCACCATATTGCCGTCTTTTGGCAATGTGAGGGCCCGGAAACC CCCCCACCTGGCGACAGGTGCCTCTGCGGCCAAAAGCCACGTGTATAAGATACACCTGCAAAGGCGGCACAACC CCAGTGCCACGTTGTGAGTTGGATAGTTGTGGAAAGAGTCAAATGGCTCTCCTCAAGCGTATTCAACAAGGGGCT GAAGGATGCCCAGAAGGTACCCCATTGTATGGGATCTGATCTGGGGCCTCGGTGCACATGCTTTACATGTGTTTA GTCGAGGTTAAAAAACGTCTAGGCCCCCCGAACCACGGGGACGTGGTTTTCCTTTGAAAAACACGATGATAATGG CCACAACCATGGTGAGCAAGCAGATCCTGAAGAACACCGGCCTGCAGGAGATCATGAGCTTCAAGGTGAACCTGG AGGGCGTGGTGAACAACCACGTGTTCACCATGGAGGGCTGCGGCAAGGGCAACATCCTGTTCGGCAACCAGCTGG TGCAGATCCGCGTGACCAAGGGCGCCCCCTGCCCTTCGCCTTCGACATCCTGAGCCCCGCCTTCCAGTACGGCA ACCGCACCTTCACCAAGTACCCCGAGGACATCAGCGACTTCTTCATCCAGAGCTTCCCCGCCGGCTTCGTGTACG AGCGCACCCTGCGCTACGAGGACGGCGGCCTGGTGGAGATCCGCAGCGACATCAACCTGATCGAGGAGATGTTCG TGTACCGCGTGGAGTACAAGGGCCGCAACTTCCCCAACGACGGCCCCGTGATGAAGAAGACCATCACCGGCCTGC AGCCCAGCTTCGAGGTGTGTACATGAACGACGGCGTGCTGGTGGGCCAGGTGATCCTGGTGTACCGCCTGAACA GCGGCAAGTTCTACAGCTGCCACATGCGCACCCTGATGAAGAGCAAGGGCGTGGTGAAGGACTTCCCCGAGTACC ACTTCATCCAGCACCGCCTGGAGAAGACCTACGTGGAGGACGGCGGCTTCGTGGAGCAGCACGAGACCGCCATCG CCCAGCTGACCAGCCTGGGCAAGCCCCTGGGCAGCCTGCACGAGTGGGTGTAATAGGGTACCAGGTAAGTGTACC CAATTCGGCCGCTGATCTTCAGACCTGGAGGAGGAGATATGAGGGACAATTGGAGAAGTGAATTATAAATATA ${\tt CAGTGGGAATAGGAGCTTTGTTCCTTGGGTTCTTGGGAGCAGCAGGAAGCACTATGGGCGCAGCGTCAATGACGC}$ TGACGGTACAGGCCAGACAATTATTGTCTGGTATAGTGCAGCAGCAGAACAATTTGCTGAGGGCTATTGAGGCGC AACAGCATCTGTTGCAACTCACAGTCTGGGGCATCAAGCAGCTCCAGGCAAGAATCCTGGCTGTGGAAAGATACC TAAAGGATCAACAGCTCCTGGGGATTTGGGGTTGCTCTGGAAAACTCATTTGCACCACTGCTGTGCCTTGGAATG ATTACACAAGCTTAATACACTCCTTAATTGAAGAATCGCAAAACCAGCAAGAAAAGAATGAACAAGAATTATTGG AATTAGATAAATGGGCAAGTTTGTGGAATTGGTTTAACATAACAAATTGGCTGTGGTATATAAAATTATTCATAA TGATAGTAGGAGGCTTGGTAGGTTTAAGAATAGTTTTTGCTGTACTTTCTATAGTGAATAGAGTTAGGCAGGGAT ATTCACCATTATCGTTTCAGACCCACCTCCCAACCCCGAGGGGACCCGACGGCCCGAAGGAATAGAAGAAGAAG ACGACTCCTGGAGCCCGTCAGTATCGGCGGAATTCCAGCTGAGCCAGCAGCAGATGGGGTGGGAGCAGTATCTCG AGACCTAGAAAAACATGGAGCAATCACAAGTAGCAATACAGCAGCTAACAATGCTGCTTGTGCCTGGCTAGAAGC ${\tt ACAAGAGGAGGAGGAGGTTTTCCAGTCACACCTCAGGTACCTTTAAGACCAATGACTTACAAGGCAGCTGT}$ AGATCTTAGCCACTTTTTAAAAGAAAAGGGGGGACTGGAAGGGCTAATTCACTCCCAAAGAAGACAAGATATCCT TGATCTGTGGATCTACCACACACACAGGCTACTTCCCTGATTGGCAGAACTACACCACGGGCCAGGGGTCAGATA TCCACTGACCTTTGGATGGTGCTACAAGCTAGTACCAGTTGAGCCAGATAAGGTAGAAGAGGCCAATAAAGGAGA TGACAGCCGCCTAGCATTTCATCACGTGGCCCGAGAGCTGCATCCGGAGTACTTCAAGAACTGCTGACATCGAGC ${\tt TTGCTACAAGGGACTTTCCGCTGGGGACTTTCCAGGGAGGCGTGGCCTGGGCGGGACTGGGGAGCCCTT}$ ${\tt CAGATGCTGCATATAAGCAGCTGCTTTTTGCCTGTACTGGGTCTCTCTGGTTAGACCAGATCTGAGCCTGGGAGC}$ GTCTGTTGTGTGACTCTGGTAACTAGAGATCCCTCAGACCCTTTTAGTCAGTGTGGAAAATCTCTAGCA

Fig. 3B

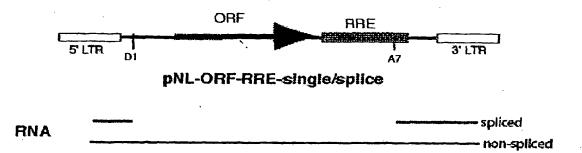
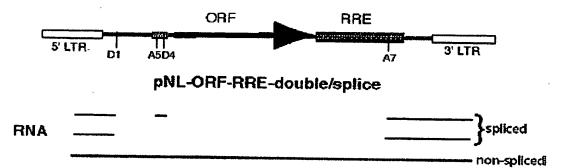
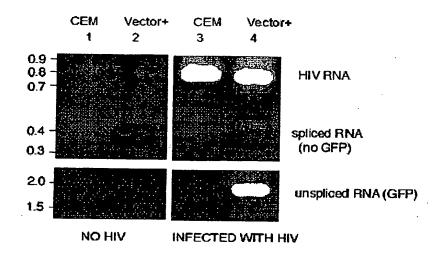


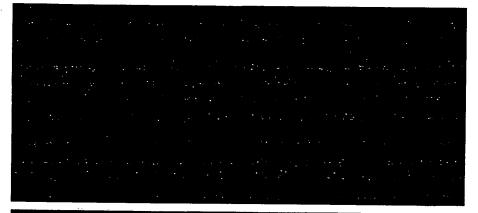
Fig. 4



F19. 5







CEM containing vector; no HIV



CEM containing vector; plus HIV

both are fluorescent microscopy for GFP

Fig. 7

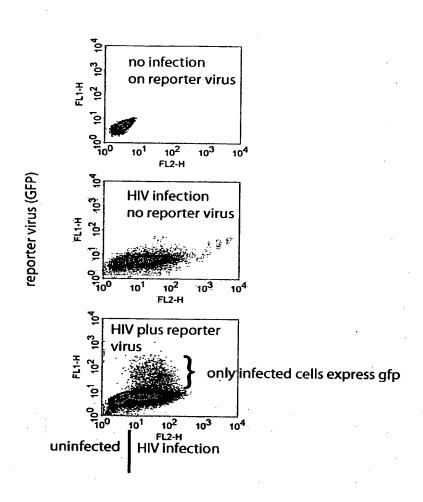


Fig.8